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10/765,828	01/27/2004	Patrick Petit	5681-78600	9079

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EXAMINER

TAYLOR, NICHOLAS R

ART UNIT	PAPER NUMBER
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2141

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/765,828

Applicant(s)

PETIT, PATRICK

Examiner

Nicholas R. Taylor

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/15/05; 5/12/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-36 have been examined and are rejected.

Claim Objections

2. Claims 15, 24, 31, and 35 are objected to because of the following informalities:
the use of extraneous "-" and "*" in claims 15, 24, and 35, and
the misspelling of "instantiated" in claim 31.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 11, 12, and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11 and 12 recite the limitation "the fifth condition." There is insufficient antecedent basis for this limitation in the claim. For the purpose of this office action, it is interpreted that the claims properly depend on claim 9.

Claim 35 duplicates the limitations of parent claim 16.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 36 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Specifically, the “computer readable medium” would reasonably be interpreted by one of ordinary skill in the art as failing to fall within a statutory category of invention, because applicant’s disclosure defines “computer readable medium” to include propagated signals (e.g., “transmission media or signals such as electrical, electromagnetic, or digital signals conveyed via communication medium” on page 31 of the specification).

Thus, in the context of the disclosure and claims in question, one of ordinary skill in the art would reasonable interpret the claimed subject matter to encompass intangible embodiments. As such, the claimed invention is not limited to a process, machine, manufacture, or composition of matter. Thus, the claimed limitations are not limited to statutory subject matter and are therefore nonstatutory.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-7, 16-22, 30, and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Bakshi, et al. (U.S. Patent 6,836,785).

9. As per claims 1, 16, and 36, Bakshi teaches a method of managing overload in a server system, having a service operating in response to input requests, and a server operation parameter related to the operation of said service, the method comprising the steps of: (Bakshi, see col. 2, lines 26-47)

a. monitoring successive values of the server operation parameter as a function of time, (Bakshi, col. 3, lines 3-17, where the server load level is monitored over time)

b. from such values, b1. evaluating a first condition, which involves whether the server operation parameter passes a first threshold value in a first direction, and (Bakshi, col. 2, lines 13-25, where the server becomes overloaded; see col. 4, lines 45-59 threshold passing)

b2. evaluating a second condition, which involves whether the server operation parameter passes a second threshold value in a second direction, with the second direction being opposite to the first direction, and extending from the first threshold value to the second threshold value, (Bakshi, e.g., col. 5, lines 3-29 and fig. 4 process steps)

c. starting rejection of input requests, upon verification of a third condition, related to the verification of at least one of said first and second conditions, and (Bakshi, col. 4, line 54 to col. 5, line 2, where a third condition is calculated and see col. 4, lines 45-59 for request rejection)

d. terminating rejection of input requests upon verification of a fourth condition, related to the verification of said second condition (Bakshi, e.g., col. 5, lines 3-29 and fig. 4 process steps, where the rejection of input requests is terminated).

10. As per claims 2 and 17, Bakshi teaches the system further wherein the third condition of step c. comprises the fact the first condition has been verified, and the fourth condition of step d. comprises the fact the second condition has been verified (Bakshi, e.g., col. 5, lines 3-29 and fig. 4 process steps).

11. As per claims 3 and 18, Bakshi teaches the system further wherein the third condition of step c. comprises the fact the second condition has not been verified during a grace period after the first condition has been verified, and (Bakshi, col. 4, line 54 to col. 5, line 2, where a grace period is calculated)

the fourth condition of step d. comprises the fact the second condition has been verified after the third condition has been verified (Bakshi, e.g., col. 5, lines 3-29 and fig. 4 process steps, where the rejection of input requests is terminated).

12. As per claims 4 and 19, Bakshi teaches the system further wherein step b1. is performed at a first rate, and step b2. is performed at a second rate, not lower than the first rate (Bakshi, col. 4, line 45 to col. 5, line 29).

13. As per claims 5 and 20, Bakshi teaches the system further wherein step b2. is performed within a time period starting upon verifying the first condition at step b1., and terminating upon verifying the fourth condition at step d (Bakshi, e.g., col. 5, lines 3-29 and fig. 4 process steps).

14. As per claims 6 and 21, Bakshi teaches the system further wherein said server operation parameter represents a quantity related to a memory usage in the server (Bakshi, col. 4, lines 1-26, where the memory usage in the server is used as the operation parameter).

15. As per claims 7 and 22, Bakshi teaches the system further wherein said server operation parameter represents a quantity related to the server throughput and to the server latency (Bakshi, col. 4, lines 1-26, where the memory usage in the server is used as the operation parameter, that also represents the available throughput and the latency for fulfilling requests).

16. As per claim 30, Bakshi teaches the system further comprising an overload manager object, having filter methods capable of implementing said request supervisor,

a gauge monitor and further methods capable of implementing the monitoring function, the first logic function and the second logic function in cooperation with said gauge monitor (Bakshi, col. 3, lines 35-65 and figs. 1 and 2 structure and interactions).

17. As per claim 33, Bakshi teaches the system further comprising an overload manager object related to a memory usage in the server (Bakshi, col. 4, lines 1-26, where the memory usage in the server is used as the operation parameter).

18. As per claim 34, Bakshi teaches the system further comprising an overload manager object related to the server throughput and to the server latency (Bakshi, col. 4, lines 1-26, where the memory usage in the server is used as the operation parameter, that also represents the available throughput and the latency for fulfilling requests).

19. As per claim 35, Bakshi teaches the system further comprising a portal server having an overload manager device as claimed in claim 21 having a service operating in response to input requests, and a server operation parameter related to the operation of said service, said device comprising: (Bakshi, see col. 2, lines 26-47)

a monitoring function for evaluating successive values of the server operation parameter as a function of time, (Bakshi, col. 3, lines 3-17, where the server load level is monitored over time)

a first logic function capable of evaluating a first condition, which involves whether the server operation parameter passes a first threshold value in a first direction, (Bakshi, col. 2, lines 13-25, where the server becomes overloaded; see col. 4, lines 45-59 threshold passing)

a second logic function capable of evaluating a second condition, which involves whether the server operation parameter passes a second threshold value in a second direction, with the second direction being opposite to the first direction, and extending from the first threshold value to the second threshold value, and (Bakshi, e.g., col. 5, lines 3-29 and fig. 4 process steps)

a request supervisor operable for: starting rejection of the input requests, upon verification of a third condition, related to the verification of at least one of said first and second conditions, and (Bakshi, col. 4, line 54 to col. 5, line 2, where a third condition is calculated and see col. 4, lines 45-59 for request rejection)

terminating rejection of the input requests upon verification of a fourth condition related to the verification of said second condition; (Bakshi, e.g., col. 5, lines 3-29 and fig. 4 process steps, where the rejection of input requests is terminated)

wherein said server operation parameter represents a quantity related to a memory usage in the server (Bakshi, col. 4, lines 1-26, where the memory usage in the server is used as the operation parameter).

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 8-15 and 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakshi, et al. (U.S. Patent 6,836,785) and Smith (U.S. Patent 5,878,224).

22. As per claims 8 and 23, Bakshi teaches the above, yet fails to teach the system further wherein step a. comprises deriving the server operation parameter from a given combination of the server throughput with the server latency.

Smith teaches a method for preventing overload of a network server by monitoring a server operation parameter (Smith, col. 2, lines 50-62) where the operation parameter is derived from a combination of the server throughput with the server latency (Smith, col. 5, lines 51-66; see col. 8, lines 22-49 formulations).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Bakshi and Smith to provide the overload calculations of Smith in the system of Bakshi, because doing so would allow a network overload system to reduce an incoming load to the maximum level it can comfortably handle in a way that overcomes the conventional techniques of less dynamic overload management (Smith, col. 2, lines 16-28 and 34-47).

23. As per claims 9 and 24, Bakshi-Smith teaches the system wherein step a. further comprises:

a1. maintaining a reference value of the server throughput and a reference value of the server latency, said reference values being updated upon verification of a fifth condition, comprising the fact that the current value of the server throughput does overlie its reference value, and a2. deriving a reference value of said server operation parameter from a combination of the reference value of the server throughput with the reference value of the server latency, said combination being of the same nature as said given combination (Smith, col. 7, lines 1-26 and col. 8, lines 21-34, where reference values are calculated).

24. As per claim 10, Bakshi-Smith teaches the system further wherein said server operation parameter is derived from the ratio of the server throughput to the reference value of the server latency and said reference value of the server operation parameter is derived from the ratio of the reference value of the server throughput to the reference value of the server latency (Smith, col. 7, lines 1-26 and col. 8, lines 21-34, where the ratio and reference values are calculated).

25. As per claims 11 and 26, Bakshi-Smith teaches the system further wherein the fifth condition further comprises the fact that the current value of the server latency does not overlie its reference value (Smith, col. 6, line 40 to col. 7, line 26).

26. As per claims 12 and 27, Bakshi-Smith teaches the system further wherein the fifth condition further comprises the fact that the server requests queue length remains substantially constant (Smith, col. 6, line 40 to col. 7, line 26).

27. As per claim 13, Bakshi-Smith teaches the system further wherein said first and second threshold values are derived from said reference value of the server operation parameter (Smith, col. 8, lines 13-34, where resulting thresholds are derived).

28. As per claims 14 and 28, Bakshi-Smith teaches the system further wherein steps a1. and a2. are performed at a third rate (Smith, col. 8, lines 13-34, e.g., the rate used for the corresponding steps).

29. As per claims 15 and 29, Bakshi-Smith teaches the system further wherein the third rate is not lower than the first rate (Smith, col. 8, lines 13-34, e.g., the rate used for the corresponding steps).

30. As per claim 25, Bakshi-Smith teaches the system further wherein the server operation parameter is derived from the ratio of the server throughput to the reference value of the server latency and the first and second threshold values are derived from the ratio of the reference value of the server throughput to the reference value of the server latency (Smith, col. 7, lines 1-26 and col. 8, lines 21-34, where the ratio and reference values are calculated).

31. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakshi, et al. (U.S. Patent 6,836,785) and "Getting Started with the Java Dynamic Management Kit 4.2."

32. As per claim 31, Bakshi teaches the above, including the use of a software implementation (Bakshi, col. 2, lines 25-47 and col. 6, lines 13-32), yet fails to teach wherein the overload manager object, the gauge monitor and the further methods are instantiated from at least one generic class.

"Getting Started with the Java Dynamic Management kit 4.2" (hereafter "DMK") teaches the use of management objects that are instantiated from at least one generic class for use in network management systems, further including the use of MBean objects and related programming constructs (DMK, pgs. 21-24; see specific discussion of dynamic MBean instantiation on the first half of page 23).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Bakshi and DMK to provide the programming constructs of DMK in the system of Bakshi, because doing so would enable interoperable and dynamically extendable distributed management systems for monitoring network operations (DMK, pgs. 11-13).

33. As per claim 32, Bakshi-DMK teaches the system further wherein the overload manager object comprises at least one MBean (DMK, see discussion of MBeans on pgs. 21-24).

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes:

U.S. Patent No. 6,912,534, which describes a method of coordinating the operation of multiple web servers by managing traffic and balancing service load among the servers;

U.S. Patent No. 6,317,786, which describes a method of load balancing web servers including web page requests; and

U.S. Patent No. 6,314,463, which describes a method of measuring queue length and delay in a web server handling multiple requests and transactions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Taylor whose telephone number is (571) 272-3889. The examiner can normally be reached on Monday-Friday, 8:00am to 5:30pm, with alternating Fridays off.

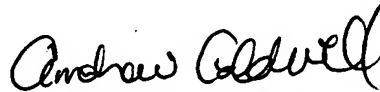
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2141

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT 9-14-07

Nicholas Taylor
Examiner
Art Unit 2141



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER